

IN THE CLAIMS:

Specific Instructions for Current Claim Amendments:

Please amend Claims 1, 5, 6, 47-50, and 52, without prejudice to or disclaimer of the subject matter therein. Please add new Claim 58.

Listing of Claims:

1. (Currently Amended) A process for obtaining lipid from microorganisms comprising:
 - a) lysing cells of the microorganisms to produce a lysed cell mixture;
 - b) treating said lysed cell mixture using a solventless extraction process to produce an extraction process conducted in a medium that comprises less than about 5% of an organic solvent, while avoiding organic solvent extraction to obtain said lipid, wherein said process produces a phase separated mixture comprising a heavy layer and a light layer, wherein said heavy layer comprises an aqueous solution phase and said light layer comprises said lipid;
 - c) separating said heavy layer from said light layer; and
 - d) obtaining said lipid from said light layer.
2. (Original) The process of Claim 1, wherein said step (b) comprises centrifuging said lysed cell mixture.
3. (Original) The process of Claim 2, wherein said light layer comprises an emulsified lipid.
4. (Original) The process of Claim 3 further comprising:
 - e) adding an aqueous extraction solution to said light layer of step (c); and
 - f) repeating said steps (b), (c) and (e) until said lipid becomes substantially non-emulsified prior to said step (d).
5. (Currently Amended) The process of Claim 3, wherein said emulsified lipid comprises a suspension of said lipid in an aqueous solution phase.
6. (Currently Amended) The process of Claim 1, wherein said aqueous solution phase comprises solid cell materials.

7. (Original) The process of Claim 1, wherein said microorganisms are obtained from a fermentation process.

8. (Original) The process of Claim 7 further comprising adding a base to a fermentation broth.

9. (Original) The process of Claim 8, wherein said base is selected from the group consisting of hydroxides, carbonates, bicarbonates, and mixtures thereof.

10. (Original) The process of Claim 7 further comprising solubilizing at least part of proteinaceous compounds in a fermentation broth.

11. (Original) The process of Claim 1, wherein said step (a) comprises heating said microorganisms to temperature of at least about 50 °C.

12. (Original) The process of Claim 1, wherein said microorganism is capable of growth at salinity level of less than about 12 g/L of sodium chloride.

13. (Original) The process of Claim 1, wherein said microorganism comprises at least about 30% by weight of lipid.

14. (Original) The process of Claim 1, wherein said microorganism is selected from the group consisting of algae, fungi, bacteria and protist.

15. (Original) The process of Claim 14, wherein said microorganisms comprise microorganisms of the order Thraustochytriales.

16. (Original) The process of Claim 15, wherein said microorganisms are selected from the genus *Thraustochytrium*, *Schizochytrium* and mixtures thereof.

17. (Original) The process of Claim 16, wherein said microorganisms are selected from the group consisting of microorganisms having the identifying characteristics of ATCC number 20888, ATCC number 20889, ATCC number 20890, ATCC number 20891 and ATCC number 20892, mutant strains derived from any of the foregoing, and mixtures thereof.

18. (Original) The process of Claim 1, wherein said microorganisms are capable of producing at least about 0.1 grams per liter per hour of docosahexaenoic acid.

19. (Original) The process of Claim 1, wherein at least about 30 % of said lipid is docosahexaenoic acid.

20-46. (Previously Cancelled)

47. (Currently Amended) The process of Claim 1, wherein said process is conducted in an aqueous solvent phase and said aqueous solvent phase comprises less than about 5% of an organic solvent.

48. (Currently Amended) The process of Claim 1, wherein said process is conducted in an aqueous solvent phase and said aqueous solvent phase comprises less than about 4% of an organic solvent.

49. (Currently Amended) The process of Claim 1, wherein said process is conducted in an aqueous solvent phase and said aqueous solvent phase comprises less than about 2% of an organic solvent.

50. (Currently Amended) The process of Claim 1, wherein said process is conducted in an aqueous solvent phase and said aqueous solvent phase comprises less than about 1% of an organic solvent.

51. (Previously Added) The process of Claim 1, wherein said treating said lysed cell mixture of step (b) is conducted without drying said cell mixture prior to the extraction process.

52. (Currently Amended) The process of Claim 1, wherein said process is conducted in the absence of an organic solvent a solventless extraction process.

53. (Previously Added) The process of Claim 1, wherein said process is conducted on microorganisms in a microbial biomass comprising at least about 10% by weight entrained water.

54. (Previously Added) The process of Claim 1, wherein said process is conducted on microorganisms in a microbial biomass comprising at least about 20% by weight entrained water.

55. (Previously Added) The process of Claim 1, wherein said process is conducted on microorganisms in a microbial biomass comprising at least about 30% by weight entrained water.

56. (Previously Added) The process of Claim 1, wherein said process is conducted on microorganisms in a microbial biomass comprising at least about 50% by weight entrained water.

57. (Previously Cancelled)

58. (New) A process for obtaining lipid from microorganisms comprising:

- a) lysing cells of the microorganisms to produce a lysed cell mixture;
- b) treating said lysed cell mixture using an extraction process conducted in a medium that comprises less than about 5% of an organic solvent, while avoiding organic solvent extraction to obtain said lipid, wherein said process produces a phase separated mixture comprising a heavy layer and a light layer, wherein said heavy layer comprises an aqueous phase and said light layer comprises lipid, and wherein said step of treating comprises treating said lipid to obtain non-emulsified lipid in said light layer;
- c) separating said heavy layer from said light layer; and
- d) obtaining said lipid from said light layer.